

**BOARD OF SUPERVISORS
TRANSPORTATION AND LAND USE COMMITTEE
ACTION ITEM**

4

SUBJECT: Riparian Buffer Incentives

ELECTION DISTRICT: Countywide

CRITICAL ACTION DATE: At the Pleasure of the Board

STAFF CONTACTS: Glen Rubis/Terrance Wharton (Director),
Department of Building and Development

RECOMMENDATIONS:

Staff: Staff recommends that the Transportation and Land Use Committee (TLUC) provide direction to staff on which incentive programs to pursue further.

BACKGROUND:

At the October 20, 2010 TLUC meeting, staff presented an overview of potential incentives to achieve effective forested riparian buffers along Loudoun County perennial streams (see October meeting item in Attachment A). These incentives were intended to assist landowners in implementing portions of the County's draft Chesapeake Bay Preservation Act amendments and also support voluntary establishment of riparian buffers where not otherwise required.

The potential incentives presented at the October meeting can be divided into the following groups:

- a) Incentives based on County tax relief.
- b) Incentives based on County-applied flexible zoning requirements.
- c) Providing supplemental funding to support existing state and federal agricultural cost-share programs that provide incentives by reimbursing landowners for costs associated with establishing riparian buffers or other best management practices (BMPs) to protect water quality. The technical aspects of these programs are currently administered through the local offices of the Loudoun Soil and Water Conservation District (LSWCD) and Natural Resources Conservation Service (NRCS).
- d) Establishing a riparian buffer planting cost-share program to reimburse landowners for planting riparian buffers and/or other water quality BMPs for rural practices that are not eligible under existing state or federal programs. This option may require additional enabling authority or recommending modifications to the Virginia Agricultural BMP Cost-Share Program to increase implementation of riparian buffer planting practices eligible for cost-share.

- e) Develop County cost-share support for establishing riparian buffers in urban areas that are currently not covered by existing programs that are agriculture-based. This included recommending to the state that it develop an urban-specific cost-share program and County support for grant-based projects for urban buffer projects.

At the request of the TLUC, staff continued investigating and assessing these potential incentives and will prepared to discuss additional details at the November 17, 2010 Committee meeting.

INFORMATION, ISSUES, AND RECOMMENDATIONS:

Further assessment of the potential incentive options identified and described in the October Item indicates that practical and viable options to supplement existing incentives may be limited. However, based on staff's investigations, two areas of the listed incentives seem reasonable to consider: (1) Supplemental funding to the LSWCD and (2) Develop a riparian buffer planting program supported with County cost-share funds and grants, when available.

Additional details of previously identified potential incentives along with issues and potential options are presented below.

A. Tax Incentives

At the October 20 TLUC meeting, the County Assessor briefed the Committee on some of the aspects and issues of tax exemptions and tax abatements. Further evaluation supports the briefing information. While it is possible to pursue the tax incentive options identified in the October item further, they do not appear to be viable. This is because significant participation by landowners is considered unlikely since easements of the buffer area (perpetual in cases of tax exemption) would be required. It has been the experience of LSWCD and County staff that the granting of voluntary easements to the County has generally not been acceptable to landowners. Furthermore, anticipated costs to the landowner and/or the County to develop and implement easements (surveying, recording easements with plats, and program support/administration) are expected to outweigh the potential benefits.

B. Flexible Zoning Requirements

As identified in the October item, zoning requirements could be made more flexible as they were with the former River and Stream Corridor Overlay District (RSCOD) ordinance if the Chesapeake Bay Preservation Act Ordinance were adopted. An applicant could request a variance of the Zoning Ordinance requirements from the Board of Zoning Appeals in cases where such requirements, along with the Resource Protection Area (if in effect), would restrict development on a parcel. An applicant can currently request a Zoning Ordinance modification through the legislative process in conjunction with applications within Planned Development Zoning Districts.

- The Board may elect to initiate a Zoning Ordinance Amendment to incorporate flexible zoning standards to support the implementation of riparian buffers. However, the Board may want to wait to see if such flexibility is needed pending the adoption and implementation of the draft Chesapeake Bay Preservation Act amendments.

C. Virginia and Federal Agricultural BMP Cost-Share Programs

1. The Virginia Agricultural BMP Cost-Share Practice for riparian buffer planting (Woodland Buffer Filter Area “FR-3”) is administered locally by the LSWCD, provides funds at a flat rate per acre of planted buffer, requires a minimum planting area of 1 acre, and specifies bare-root seedling stock (which is susceptible to wildlife damage). In addition, two attempts at replanting are required for plant mortality, which are not covered by cost-share funding. Additional information on this program is provided in the October item (Attachment A). A total of 33 acres of buffer planting were installed through this program during the past 10 years in Loudoun County.
2. The Conservation Reserve Enhancement Program (CREP) is administered by the federal Farm Service Agency with local technical support from LSWCD and NRCS. Details of this program are provided in the October item (Attachment A). Approximately 100 acres of forested riparian buffers have been established in Loudoun through CREP since 2001.
3. Both state and federal cost-share programs also provide funding to offset costs to exclude livestock from streams. LSWCD provides up to \$3.33 per foot of cost-share reimbursement (75 percent of the \$4.44/foot maximum fencing cost that is covered) for fencing that meets their minimum construction criteria. A total of 77 miles of cost-share fence have been installed over the past 10 years. Replacement water supplies are typically needed when livestock are excluded from streams.¹ LSWCD provides cost share for up to 75percent of the eligible cost of \$2,500 per watering trough (\$1,875 reimbursement per trough) and 75percent of the eligible cost of \$3.00 per foot of water supply pipe (\$2.25/foot reimbursement) for watering systems that meet their minimum criteria.

Incentive Recommendation I

Based upon a meeting between County and LSWCD staff on November 3, 2010, staff recommends that the County consider several options to increase establishment and/or protection of riparian buffers. To increase participation by landowners, the cost-share reimbursement for livestock exclusion and watering system practices could be increased from 75 percent to 90 percent. LSWCD has funded an average of 8 miles of fence and 12 watering troughs a year for the past 10 years. Based on these averages, a total of \$35,500 per year would be needed to increase the cost-share for these practices from 75 percent to 90 percent. Staff recommends that the County consider allocating an additional \$36,000 to LSWCD in FY12 to support implementation of these BMPs. Staff further recommends that an additional \$53,000 in funding in FY12 (enough to support installation of approximately 2 miles of fence and 6 watering troughs with water supply pipe) be allocated to LSWCD to support 75 percent cost-share reimbursement for installation of exclusion fencing and watering practices on horse operations that would not otherwise be eligible for cost-share funding.

¹ Livestock exclusion fencing can benefit riparian buffers even without direct riparian buffer plantings. Excluding livestock from the buffer area allows existing vegetation to develop naturally and will eventually result in trees that produce a forested buffer. (This assumes the buffer area is not mowed with the exception of a small strip just inside the fence line to facilitate maintenance.) Furthermore, bank erosion caused by livestock entering and exiting the stream is eliminated.

Incentive Recommendation II

Participation in the state cost-share program for riparian planting has been limited due to the requirement to make two efforts to replace, without additional cost-share reimbursement, planted buffer vegetation that does not survive. The potential extra out-of-pocket cost to landowners due to this requirement is exacerbated by the susceptibility of the required plant type (seedlings) to damage from wildlife. Staff recommends that the County, along with input from LSWCD staff, develop and provide recommended changes to the Virginia Department of Conservation and Recreation to address this issue with the intent to improve participation and successful implementation of the Woodland Buffer Filter Area “FR-3” practice on agricultural lands. As an example, the County Arborist developed a preliminary set of planting options (with estimated costs) that would provide more robust buffer plantings and, thereby, reduce the likelihood of replanting due to plant mortality (Attachment B). Information similar to this could be used to help draft planting requirements and provide them as recommendations to DCR.

D. Urban and Agricultural Riparian Planting/BMP Cost-Share

The federal and state cost-share programs identified above are limited to certain sizes and types of agricultural operations. Consequently, urban areas and certain types of rural properties are not eligible for these cost-share monies. To increase the potential pool of locations that forested riparian buffers could be established, more of these “other” sites need to be eligible for cost-share funding.

Incentive Recommendation III

Although staff is continuing to investigate the issue, staff has not yet discovered specific enabling authority from the Commonwealth that would authorize the County to establish a fund for reimbursing private landowners for costs associated with establishing riparian buffers. If it is determined that such enabling authority does not exist, the County could elect to pursue legislation that would provide such authority so that the County fund could be established and administered. However, the County may currently provide funds to nonprofit organizations (or to the LSWCD if they are willing to participate) to administer a program to fund or reimburse landowners for riparian buffer planting. It is anticipated that these would typically fund smaller projects such as those in urban/suburban areas. For any riparian planting cost-share funding supported by the County, staff recommends that the Board consider identifying specifications related to the buffer width to be planted, the type of plantings required (such as those outlined in Attachment B, as a possible example), success criteria, and the contract period, with a focus on ensuring that the water quality benefits of the associated project are maintained.

Incentive Recommendation IV

Another possible source of funding for establishing riparian buffers is grants. Grants to establish riparian buffers have been applied for by the County in the past and are expected to contribute to establishing riparian buffers in the future at some level, as they will continue to be pursued. Grants typically require matching funds in the range of 25 percent to 50 percent of the total grant project cost. Some of the match can usually be in the form of in-kind services such as staff hours in support of grant project activities. Granting agencies/programs that have supported projects that may include establishing riparian buffers include: National Fish and Wildlife Foundation’s (NFWF) Chesapeake

Bay Stewardship Fund, Small Watershed Grants and, from the same NFWF fund, the Innovative Nutrient and Sediment Reduction Grants; and Virginia Department of Conservation and Recreation's Water Quality Improvement Fund. Individual grants awarded through these programs typically range from approximately \$5,000 to several hundred thousand dollars. Grants should not be considered a reliable or consistent source of funding due to competition by many localities for the same grant money and changes to federal or state grant programs that may include reductions in funding or shifts in funding from one type of grant program to another. Staff recommends that the County continue to support grant opportunities by, considering on a per-grant basis, making matching funds available for grants associated with establishing forested riparian buffers.

FISCAL IMPACT:

The direct fiscal impact to the County associated with funding to the LSWCD as identified in Incentive Recommendation I would total \$89,000 in FY12. County staff time to assist with implementing this recommendation would be part of existing staff responsibilities to the County's on-going watershed and water resources management programs. Detailed fiscal analysis will be conducted to estimate the impact on revenues and/or expenditures from the other incentive recommendations should those be considered further by the Committee.

SUGGESTED MOTIONS:

1. I move that the Transportation Land Use Committee recommend to the Board of Supervisors that \$89,000 in additional funds during FY12 be allocated to the LSWCD to implement Incentive Recommendation I;

and

I move that staff develop draft recommendations to the Virginia Department of Conservation and Recreation to improve participation and successful implementation of the Woodland Buffer Filter Area "FR-3" buffer planting practice on agricultural lands (Incentive Recommendation II) and provide those recommendations to the Committee for further discussion at the December 14, 2010 Transportation Land Use Committee meeting. Additional discussion on other incentives can be continued at the next Committee meeting.

OR

2. I move an alternate motion.

ATTACHMENTS: A. October 17, 2010 TLUC Item on Riparian Buffer Incentives
B. Draft Example of Alternative Buffer Planting Specifications

Date of Meeting: October 20, 2010

**BOARD OF SUPERVISORS
TRANSPORTATION AND LAND USE COMMITTEE
ACTION ITEM**

4

SUBJECT: **Riparian Buffer Incentives**

ELECTION DISTRICT: **Countywide**

CRITICAL ACTION DATE: **AT THE PLEASURE OF THE BOARD**

STAFF CONTACTS: **Glen Rubis/Terrance Wharton (Director),
Department of Building and Development**

RECOMMENDATIONS:

Staff: Staff recommends that the Transportation and Land Use Committee (TLUC) continue discussion of potential incentive programs at the next Committee meeting, and that the Committee identify additional research that staff can undertake for these types of programs.

BACKGROUND:

At the October 5, 2010, Business Meeting, the Board moved that the Committee explore potential incentives to achieve effective forested riparian buffers along Loudoun County perennial streams. This effort is intended to examine permanent conservation easements and efforts that complement existing state and federal buffer initiatives. Further, it would assist landowners in implementing the draft Chesapeake Bay Preservation Act amendments and voluntarily reforesting riparian buffers where not otherwise required. The following incentives have been identified to date:

SUMMARY OF INCENTIVES:

- A. As part of the June 15, 2010 Board of Supervisors Comment Matrix, Supervisor Kurtz inquired about the following potential incentives to establish or preserve riparian buffers:
1. **Tax Exemption** - Provision of a full or partial tax exemption for riparian areas would require an amendment to the County tax code. Landowners would be required to place the land within the riparian buffer in a perpetual conservation easement to qualify for the exemption, which is not currently proposed under the draft Chesapeake Bay Preservation Act amendments. Initial assessment of this potential option identified the following issues:

- a) To create the conservation easement, the landowner would have to employ an engineer/surveyor to prepare a plat depicting the metes and bounds of the easement on the parcel and prepare a Deed of Open Space Easement (from a County-prepared template). The Deed and Plat would then be submitted for review.
 - b) Initial consultation with the County Assessor's office indicated that the costs to administer such a program would likely outweigh the benefit for the limited number of landowners expected to enroll.
2. **Tax Abatement** - The Board could adopt an amendment to the County tax code to provide for a tax abatement to offset the cost of voluntarily planting a riparian buffer of a designated effective width, adjacent to a specific type of stream (e.g., perennial), in accordance with adopted planting specifications. For example, to help offset planting costs, the County could consider reducing the taxable land value and allowing the property owner to be subject to a lower tax payment for a time period designated by the County. The abatement would provide an incentive to plant the buffer in areas that are not currently forested, allowing the property owner to enhance the property, while receiving a tax incentive to offset the project cost.
 3. **Flexible Zoning Requirements** – The Board could amend the Zoning Ordinance to provide additional flexibility in regard to zoning regulations such as required setbacks and building height restrictions in order to facilitate the establishment and reforestation of riparian buffers. It should be noted that the draft Chesapeake Bay Preservation Act amendments include provisions for exceptions that would allow development within the Resource Protection Area ("RPA"), provided certain criteria are satisfied. In addition, an applicant could request a variance of the Zoning Ordinance requirements from the Board of Zoning Appeals in cases where such requirements, along with the RPA, would restrict development on a parcel. An applicant could also request Zoning Ordinance modifications through the legislative process in conjunction with applications within Planned Development Zoning Districts.
- B. The Board may also want to consider supplementing the following, existing federal and state programs, which currently incentivize riparian buffer planting on agricultural land:
1. **Virginia Agricultural BMP Cost-Share Program** – The Loudoun Soil and Water Conservation District ("SWCD") administers a State-funded cost-share program to promote the implementation of agricultural Best Management Practices ("BMPs") to protect water quality. In order to be considered agricultural land, the property must consist of a minimum of 5 contiguous acres and there must be an annual minimum of more than \$1,000 of agricultural products being produced, sold, or both, from the applicant's agricultural land.

The most an individual may receive is \$50,000/applicant/year. In any case, the state cost-share payment, combined with federal payments, will not exceed 75 percent of the total eligible costs.

- a. The "Woodland Buffer Filter Area" cost-share practice provides funding for buffer reforestation of cropland and pastureland adjacent to streams. Cost-share is provided via a one-time incentive payment of \$200/acre for pine planting and \$650/acre for hardwood

planting for bare root seedlings. The Virginia Department of Forestry provides technical oversight and specifies planting density. A minimum width of 35 feet from the edge of the stream bank, or up to one-third of the floodplain, not to exceed 100 feet is required. In order to obtain funding, the landowner must agree to a 10-year contract period, after which the planting could be altered or removed. The Loudoun SWCD provides cost-share for an average of one of these projects each year.

- b. The “Continuous Conservation Initiative Forested Riparian Buffer” cost-share practice provides a single payment of \$100 per acre paid up front for the maintenance and protection of a forested riparian buffer for the 5-year lifespan. This is a new practice added in 2010 to encourage the preservation of riparian plantings beyond the contract expiration date. A minimum width of 35 feet from the edge of the stream bank, or up to one-third of the floodplain, not to exceed 100 feet is required. The minimum Chesapeake Bay Preservation Act, or any other locally required buffer, is not eligible for cost-share. This program also provides a payment of \$1 per foot of fence. Given the priority for establishing forest cover on cropland and pastureland, funding is less likely to be allocated for this practice. The Loudoun SWCD has not received any applications for funding for this practice to date.

- 2. **Conservation Reserve Enhancement Program (“CREP”)** – This program is administered by the Farm Service Agency (“FSA”) with technical support from the Natural Resources Conservation Service (“NRCS”) and the Loudoun SWCD. It provides 50 percent Federal cost-share funding and 25 percent State cost-share funding for the installation of conservation practices, such as riparian planting, livestock exclusion fencing, watering systems, and hardened stream accesses. Conversion of cropland and pastureland adjacent to streams to forested riparian area is eligible for funding. Planting is required at a rate of 110 tublings (seedling with a plastic tree shelter) per acre at a minimum width of 1/3 of the floodplain or 35 feet, whichever is greater, up to a maximum of 300 feet. A Federal rental payment of approximately \$80/acre/year is provided for a contract period of 10-15 years (selected by the landowner). A Federal signing incentive payment (“SIP”) of \$10/acre/year and a Federal practice incentive payment (“PIP”) of 40 percent of the eligible cost for all conservation practices are also provided. The State also provides a \$5/acre/year rental payment for maintenance.

Following the installation of the conservation practices, the landowner has the option of recording a permanent open space easement to protect the buffer in perpetuity in exchange for an additional \$1,000 per acre, which ensures that the buffer will remain planted beyond the 10-15 year contract period. The easement also allows the Virginia Department of Conservation and Recreation (“DCR”) to monitor the riparian buffer on an annual basis to ensure that the easement is being implemented and to ensure that future landowners honor the conditions of the easement. None of the Loudoun landowners that have participated in CREP have opted to record the CREP easement to date. However, some landowners have recorded other types of conservation easements on their property (e.g. stream and wetland mitigation projects).

The first CREP applications in Loudoun were approved in 2001. A total of approximately 100 acres of forested riparian buffers has been established since that time, with an average of

1 to 2 applications per year in Loudoun. CREP applications will be accepted by FSA until December 31, 2011. The program may be renewed if it is included and funded under the new Federal Farm Bill.

3. **State Income Tax Credit** – Agricultural landowners that participate in the Virginia Agricultural BMP Cost-Share Program and/or CREP are also eligible for a 25 percent state income tax credit for out-of-pocket expenses. The tax credit is an added incentive given the fact that cost-share funding is taxable income.
- C. Some specific options available to the Board for supplementing the above-referenced, existing agricultural incentive programs, include the following:
1. **Supplemental Funding to the Loudoun SWCD** – The Board could provide additional funding to the Loudoun SWCD to supplement the funding they currently receive from the State to administer the Virginia Agricultural BMP Cost-Share Program. The Loudoun SWCD has already received applications for up to 90 percent of the State funding allocated for the current fiscal year. Supplemental funding provided by the County could be used to reimburse landowners for expenses that are not covered under current cost-share allocations (e.g., 25 percent of the project cost) or to allow additional applications to be approved at the current cost-share rate. The State cost-share allocation to the Loudoun SWCD for this fiscal year (July 1, 2010 – June 30, 2011) is \$178,000. The State funding provided to the Loudoun SWCD varies from year to year and was over \$400,000 in the previous fiscal year. Supplemental funding from the County would help stabilize the annual funding level allocated for cost-share. The County could also work with the Loudoun SWCD and FSA on developing a similar program to supplement the rental payments provided under the Federal CREP program.
 2. **Supplemental Funding for Specific Cost-Share Practices** – The Board may want to consider providing funding to support the implementation of certain, specific agricultural practices not otherwise eligible for cost-share. For example, some horse operations (e.g., boarding operations) may not be eligible for cost-share funding under the Virginia Agricultural BMP Program. The County could dedicate funding to implement conservation practices, such as livestock exclusion (fencing), watering systems, and riparian planting for those operations.
- D. Due to the fact that many of the programs described above are not applicable to urban land, the Board may also want to consider the following incentives to encourage riparian planting on urban land.
1. **State Urban Cost-Share Program** – The Board may elect to recommend that DCR establish a cost-share program for urban projects similar to the agricultural cost-share program, which could support funding for small urban riparian buffer projects.
 2. **Albemarle County Stream Buffer Restoration Initiative** – In 2006, Albemarle County was awarded a Water Quality Improvement Fund Grant in the amount of \$159,000 to reimburse landowners 50 percent of the cost of reforesting non-agricultural riparian land within impaired stream watersheds. The “Quick Fact Sheet” (Attachment #1) provides additional

information related to the project. Implementation of the grant resulted in cost-shared riparian buffer planting on over 25 acres of land located within 200 feet of streams. The Board may direct Staff to pursue similar grant opportunities in order to cost-share riparian planting on urban land.

- E. Staff is in the process of conducting an Internet search for “incentives for achieving riparian buffers.” Results to date indicate that other jurisdictions have established programs similar to those summarized above. For example, the “Maryland Agricultural Cost-Share Program” provides up to 87.5 percent of the cost of conservation practices to a maximum of \$20,000. The “Maryland State Buffer Incentive Program” provides a one-time payment of \$300 per acre for riparian buffer planting, in accordance with the following specifications: 1) 1-acre minimum to 50-acre maximum planting area; 2) a 10-year contract period; 3) a minimum 50-foot planting width; 4) payment is made after the first year only if 65 percent of the trees survive; 5) Christmas trees and orchard trees are not eligible for payment. Staff will continue the Internet search for incentives and will provide an update on any additional incentive programs identified at the Committee meeting.

For any incentives that the County pursues, Staff recommends that the Board consider identifying specifications related to the buffer width to be planted, the type of plantings required, and the contract period, with a focus on ensuring that the water quality benefits of the associated project are maintained.

FISCAL IMPACT:

The specific fiscal impact to the County cannot be calculated at this time. Should these types of incentive programs be considered further by the Board of Supervisors, a detailed fiscal analysis would take place to determine the impact on revenues and/or expenditures.

SUGGESTED MOTIONS:

1. I move that the Transportation Land Use Committee continue the riparian buffer incentives discussion during the November 17, 2010, Transportation Land Use Committee meeting.

OR

2. I move an alternate motion.

ATTACHMENTS:

1. Albemarle County “Quick Fact Sheet”



Loudoun County, Virginia

www.loudoun.gov

Attachment B

Department of Building and Development

1 Harrison Street, S.E., P.O. Box 7000, Mailstop #60A, Leesburg, VA 20177-7000

(703) 777-0220

FAX Numbers: Permits (703) 771-5522 - Engineering (703) 737-8993

Zoning & Administration (703) 771-5215

PRELIMINARY / DRAFT EXAMPLES AND COSTS

LOUDOUN COUNTY STREAM BUFFER RESTORATION INITIATIVE

Applicant has the choice of **one** of the following planting options:

1. Plant 425 stems/acre consisting of 150 native deciduous canopy trees, 110 native deciduous understory trees and 165 native shrubs on an approximate 10' x 10' spacing. All deciduous plant material must be either 3 gallon containers or 1" minimum caliper. Evergreens may be used (6' minimum height) in lieu of hardwoods and shrubs, but must be planted at the same density and spacing. Estimated cost/acre (material + labor) is \$12,000 using containers and \$25,000 using 1" caliper.
2. Plant 600 native deciduous hardwood seedlings/acre on an approximate 8' x 9' spacing. Install a 2' x 2' mat for vegetation control and stake a 4' tree shelter over each seedling for animal control. 1000 evergreen seedlings/acre may be used in lieu of hardwoods, but must be planted on an approximate 6' x 7' spacing using only mats for vegetation control. Estimated cost/acre is \$3500 - \$4000.
3. Plant a combination of native deciduous hardwood (225/acre with a 1" minimum caliper) and evergreens (75/acre with a 6' minimum height) on an approximate 12' x 12' spacing. Estimated cost/acre is \$18,000.

*Bare root seedlings should be planted from March 1st – April 30th.

*Containerized or balled & burlapped deciduous trees should be planted from Oct. 15th – Dec. 15th.

*Balled & burlapped evergreens should be planted from Sept. 15th – Nov. 15th.

*Bare root seedlings with tree shelters may not be approved on some floodplain sites with frequent and high volume flooding.

*Protect the trunks of all 1" minimum caliper hardwood from buck rub with custom cut 4" perforated pvc.